

## ABSTRACT

### VIBRATING GYROSCOPE WITH FEEDBACK CONTROL OF THE DETECTION FREQUENCY WITH RESPECT TO THE EXCITATION FREQUENCY

The invention relates to a gyroscope comprising at least one mass (M) capable of vibrating along an x axis at a resonant excitation frequency  $F_x$  capable of vibrating along a y axis perpendicular to the x axis, at a resonant detection frequency  $F_y$ , under the effect of a Coriolis force generated by a rotation about a z axis perpendicular to the x and y axes. It includes, connected to the mass or masses (M), a feedback control loop for controlling the resonant frequency  $F_y$  so that  $F_y$  is equal or practically equal to  $F_x$  throughout the duration of use of the gyroscope.

Fig. 7